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Restriction Requirement

The Examiner has restricted the instant application to one of the following inventions under 35 U.S.C. § 121 and 372.

I. Claims 1-34 and 54-63, drawn to a method of down regulating cells expressing a cell-associated polypeptide antigen in an animal comprising administering a polypeptide antigen analogue.

II. Claims 35-47, drawn to a method of down regulating cells expressing a cell-associated polypeptide antigen in an animal comprising administering a microorganism or virus carrying a nucleic acid sequence which encodes a polypeptide antigen analogue.

III. Claims 48-50, drawn to a method for selection of an immunogenic analogue of a cell-associated polypeptide analogue.

IV. Claims 51-53, drawn to a method for the preparation of a cell producing an analogue of a cell-associated peptide antigen.

V. Claims 64-66 and 73, drawn to an analogue of human PSM and composition thereof.

VI. Claims 67-69, drawn to an analogue of human Her2.

VII. Claims 70-72, drawn to an analogue of human/murine FGF8b.

VIII. Claims 74-83, drawn to nucleic acid, vector and transformed cell comprising the nucleic acid encoding a

polypeptide analogue of human PSM and composition thereof and a method of transforming the cell.

The Examiner contends that the inventions listed as Groups I-VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature for the following reason: Claim 1 does not provide a technical feature that is distinguished over prior art reference WO 95/05849. The Examiner contends that this reference teaches a method for the modulation of self-proteins by inserting one or more foreign T cell epitopes into self-proteins. The Examiner urges that the skilled artisan was aware that self-proteins are non-immunogenic and that epitopes of such proteins are presented by Class I MHC molecules expressed on the surface of antigen presenting cells (APC). The Examiner contends that although WO 95/05849 teaches insertion Th epitopes, the skilled artisan would have been aware that T cell help is also required for the production of CTL from CTL precursors. The Examiner concludes that it would have obvious to have also included CTL epitopes in order to obtain an immune response that used both the humoral and cell-mediated arms of the Immune System. That is, the method that effects simultaneous presentation by an APC of a CTL epitope and a Th epitope. On this basis, the Examiner states "claim 1 does not provide a special technical feature, the instant

invention lacks an inventive step and therefore lacks Unity of Invention." Applicants respectfully traverse.

Applicants first point out that the International Preliminary Examination Report does not find that there is lack of Unity of Invention. In addition, the same International Preliminary Examination Report indicates that claims 1-83 are considered to have inventive steps.

According to 35 U.S.C. § 371, PCT Rule 13.1 and 13.2 will be followed when considering Unity of Invention of claims without regard to the practice in national applications (MPEP 1850). Thus, the U.S. Application must be examined for Unity of Invention consistent with the Patent Cooperation Treaty, not just by giving verbal assent to the Unity of Invention standards, but in actual application of the standard. See *Caterpillar Tractor Co. v. Commission of Patents and Trademarks*, 231 USPOQ 590 (E.D.VA. 1986).

Applicants also respectfully point out that any perceived lack of an inventive step has nothing to do with whether or not the claims of an application lack Unity of Invention. Furthermore, the reference cited by the Examiner, WO 95/05849, discusses only the insertion of Th epitopes into self-proteins. There is no discussion of CTL epitopes nor of Class I MHC molecules. Thus, Applicants fail to see how the Examiner can support her argument that WO 95/05849 makes the instant invention obvious.

In view of the above remarks, Applicants respectfully request reconsideration and removal of the restriction.

To be fully compliant with 35 U.S.C. § 121, however, Applicants elect Group VI.

The Examiner indicates that should any one of Groups V-VII be elected, the election of a single disclosed specie is also required. To comply with this requirement, Applicants elect an analogue wherein a foreign Th epitope is introduced in a position defined by SEQ ID NO. 3, residues 250-264. The Th epitope introduced is elected to be SEQ ID NO. 12 (the tetanus toxoid P2 epitope).

Accordingly, Applicants request early allowance of the claims.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Leonard R. Svensson (Reg. No. 30,330) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By _____
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LRS/SWG/sbp
3631-0109P

Attachment: Version with Markings to Show Changes Made

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope to: Commissioner of Patents and Trademarks, Washington D.C. 20231 on: April 25 2003
(Date of deposit)

BIRCH, STEWART, KOLASCH & BIRCH, LLP

_____
(Signature)

April 25, 2003
(Date of Signature)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims have been amended as follows:

67. (Twice Amended) An analogue of human Her2 which is immunogenic in humans, said analogue comprising a substantial part of all known and predicted CTL and B-cell epitopes of the extracellular part of Her2 and including at least one immunodominant foreign T_H epitope ~~as defined in any of claims 18~~.

69. (Amended) The analogue according to claim 68, wherein the foreign T_H epitope is introduced in ~~the positions defined in claim 62~~ a part of the Her2 amino acid sequence defined by SEQ ID NO: 3 positions 5-25 and/or 59-73 and/or 103-117 and/or 149-163 and/or 210-224 and/or 250-264 and/or 325-339 and/or 369-383 and/or 465-479 and/or 579-593 and/or 632-652 and/or 653-667 and/or 661-675 and/or 695-709 and/or 710-730.

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